

**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE ENVIRONMENTAL PROTECTION AGENCY
OF THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF ENVIRONMENTAL PROTECTION
OF THE PEOPLE'S REPUBLIC OF CHINA
ON ENVIRONMENTAL COOPERATION**

The Environmental Protection Agency of the United States of America (EPA) and the Ministry of Environmental Protection of the People's Republic of China (MEP), hereafter referred to as the "Parties," in accordance with and subject to the Agreement between the Government of the United States of America and the Government of the People's Republic of China on Cooperation in Science and Technology, signed in the District of Columbia, on January 31, 1979, as amended and extended (the "S&T Agreement"), in order to promote scientific and technical cooperation and collaboration in the field of environmental protection, have reached the following understandings:

Article 1

The Parties shall conduct cooperative activities under this Memorandum of Understanding (MOU) on the basis of equality, reciprocity and mutual benefit.

Article 2

Cooperative activities undertaken pursuant to this MOU may involve the following areas:

1. Prevention and management of:
 - a. air pollution;
 - b. water pollution;
 - c. soil pollution;
 - d. pollution from hazardous and solid waste; and
 - e. pollution from persistent organic pollutants (POPs) and other toxic substances;
2. Environmental science;
3. Emergency response;
4. Environmental threats to human health and to ecosystems;

5. Ecosystems restoration and recovery;
6. Environmental policy and management;
7. Environmental education and public awareness;
8. Environmental-law development, implementation, compliance and enforcement; and
9. Other areas as determined by the Parties.

Article 3

Cooperation under this MOU may include the following forms:

1. Transfer or exchange of scientific and technical information in the field of environmental protection;
2. Joint organization of symposia, seminars, workshops and training;
3. Study tours, exchanges and temporary assignments of personnel from one Party to the other;
4. Joint scientific publications;
5. Joint projects to demonstrate environmental-management approaches and technologies;
6. Cooperative research on subjects of mutual interest;
7. Provision of samples, reagents, materials, data, instruments and components for testing, evaluation and other purposes; and
8. Other forms of cooperation as may be determined by the Parties.

Article 4

The Parties shall encourage and facilitate the development of direct contacts between environmental and scientific groups from each country, including through the coordination of cooperation among local government agencies, research institutions, business and industry, universities, think tanks and other entities, in conducting activities under this MOU.

Article 5

1. Six annexes to this MOU have been prepared regarding the subject and form of cooperation contemplated under the MOU:

- a. Annex 1 - Air Pollution;
- b. Annex 2 - Water Pollution;
- c. Annex 3 - Pollution from Persistent Organic Pollutants and Other Toxics;
- d. Annex 4 - Soil Pollution and Pollution from Hazardous and Solid Waste;
- e. Annex 5 - Implementation and Enforcement of Environmental Law; and
- f. Annex 6 - Environmental Law and Institutions.

2. The Parties shall develop additional annexes to the MOU for each of the areas of cooperation contemplated under the MOU, as appropriate. Each annex shall outline the subject and form of cooperation and shall be an integral part of the MOU. Specific cooperative activities and the terms under which they will be conducted, including financial arrangements, shall be described in separate project agreements, strategies or work plans.

3. In the event of a conflict between the terms of an annex and the articles of this MOU, the articles of this MOU shall prevail.

Article 6

1. The Parties hereby establish a Joint Committee on Environmental Cooperation (JCEC). The JCEC will be co-chaired at the level of the EPA Administrator or Assistant Administrator for International and Tribal Affairs and at the level of Minister or Vice Minister of the MEP or their designees.

2. All working groups established by the Parties under this MOU will be guided by the JCEC.

3. The co-chairs, by mutual agreement, may determine the remaining composition of the JCEC and the entities that may attend or participate in JCEC meetings and may establish additional subcommittees or working groups as determined to be necessary to effectively implement this MOU. The specific structures and responsibilities of the subcommittees or working groups, and any modifications thereto, shall be determined by the JCEC.

4. The JCEC will meet at least once every two years. Such meetings shall be held alternately in the United States of America (USA) and The People's Republic of China (PRC). Prior to each meeting of the JCEC, the Parties shall agree to a meeting agenda. The Parties will endeavor to place items on the agenda that cover a wide range of environment-related issues such as technical exchange, informational exchange, scientific research and environmental policy.

5. Each Party will designate a Liaison Secretary. The Liaison Secretary shall be the EPA Deputy Assistant Administrator for International and Tribal Affairs and at the Deputy Director General level for MEP or their designees. The Liaison Secretaries shall serve as the points of contact for their respective Parties for the JCEC and shall provide strategic coordination, advise the JCEC and supply administrative support for meetings of the JCEC.

Article 7

All activities undertaken pursuant to this MOU shall be undertaken in accordance with the applicable laws of the Parties and are subject to the availability of appropriated funds, personnel and other resources of each Party.

Article 8

The treatment of intellectual property created or furnished in the course of activities under this MOU, the allocation of rights for such intellectual property, and business-confidential information obtained and/or exchanged pursuant to this MOU, will be governed by the provisions of Annex I (Intellectual Property) of the S&T Agreement, as amended and extended.

Article 9

Both Parties agree that no information or equipment requiring protection in the interest of national defense or foreign relations and classified in accordance with applicable national laws and regulations shall be provided under this MOU. In the event it is subsequently discovered that information or equipment known or believed to require such protection is identified as having been furnished in the course of cooperative activities pursuant to this MOU, the matter shall be brought immediately to the attention of the appropriate officials and the Parties shall consult to identify appropriate security measures to be agreed upon by the Parties in writing and applied to this information and equipment.

Article 10

The transfer of unclassified export-controlled information or equipment between the Parties shall be in accordance with the relevant laws and regulations of each Party. If either Party deems it necessary, detailed provisions for the prevention of unauthorized transfer or retransfer of such information or equipment shall be incorporated into the appropriate project agreements or work plans. Such information or equipment shall be marked to identify it as export-controlled, and the Parties shall consult to identify appropriate restrictions or other requirements regarding the transfer of this information or equipment.

Article 11

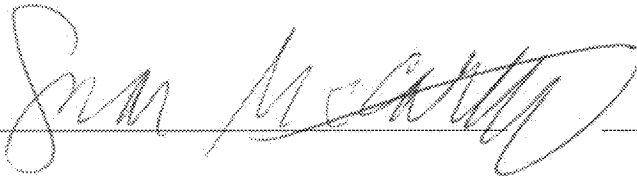
Upon entry into force, this MOU supersedes the Memorandum of Understanding between the Environmental Protection Agency of the United States of America and the Ministry of Environmental Protection of the People's Republic of China on Scientific and Technical Cooperation in the Field of Environment, signed October 10, 2010.

Article 12

1. This MOU shall enter into force upon signature and shall remain in force for five (5) years or for as long as the S&T Agreement remains in force, whichever is shorter. Either Party may terminate this MOU upon six months' written notification, through diplomatic channels, to the other Party. Such termination shall be without prejudice to the rights that may have accrued to either Party under Annex I to the S&T Agreement. The Parties shall consult regarding the effect of termination on the implementation of ongoing programs and activities agreed to under the MOU prior to the date on which notice of termination was given.

2. Either Party may request in writing, through diplomatic channels, to amend this MOU. Any amendment must be mutually agreed upon by the Parties in writing.

DONE at the District of Columbia on this 19th day of November, 2015, in duplicate in the English and Chinese languages, both texts being equally authentic.



Gina McCarthy
Administrator
Environmental Protection Agency
of the United States of America

Chen Jining
Minister
Ministry of Environmental Protection
of the People's Republic of China

ANNEX 1

Air Pollution

Article 1

Authority

1. This annex to the Memorandum of Understanding (MOU) between the Environmental Protection Agency of the United States of America (EPA) and the Ministry of Environmental Protection of the People's Republic of China (MEP) on Environmental Cooperation sets forth a framework for scientific and technical cooperation on air pollution.
2. Under this annex, agreements related to project activities, including those pertaining to financial and other relevant issues, will be developed by participating institutions. These project agreements shall be negotiated and executed by duly authorized representatives of implementing institutions, to include the EPA and MEP, together, the "Parties".

Article 2

Scope

Project activities under this annex may include work in the following areas:

1. Management of air quality, including standard setting, monitoring, emission measurement and inventories, modeling, emissions trading, stationary and mobile-source control policies and strategies, funding, inter-governmental relations and public-information programs;
2. Management of clean-energy policy and technology (transportation, residential, industrial, and commercial) that helps to reduce or eliminate pollution and greenhouse gases;
3. Management, reduction and elimination of air toxics;
4. Management of indoor air quality;
5. Compliance with and enforcement of air-pollution and clean-energy-technology policies and standards; and
6. Other areas as determined by the Parties.

Article 3

Forms of Cooperation

Cooperation under this annex may include the following forms:

1. Transfer or exchange of scientific and technical information in the field of environmental protection;
2. Joint organization of symposia, seminars, workshops and training;
3. Study tours, exchanges and temporary assignments of personnel from one Party to the other;
4. Joint scientific publications;
5. Joint projects to demonstrate environmental-management approaches and technologies;
6. Cooperative research on subjects of mutual interest;

7. Provision of samples, reagents, materials, data, instruments and components for testing, evaluation and other purposes; and
8. Other forms of cooperation as may be determined by the Parties.

Article 4 Project Plans

Specific cooperative activities and the terms under which they will be conducted, including financial arrangements, shall be described in project agreements, strategies and work plans.

Article 5 Designation of Management Officials

1. Management Officials administering activities under this annex will work with participating institutions to facilitate implementation of project agreements, strategies and work plans.
2. The Management Officials for the United States shall be the Deputy Assistant Administrator for the EPA Office of Air and Radiation and the Deputy Assistant Administrator for the EPA Office of International and Tribal Affairs.
3. The Management Official for China is the Deputy Director General for Air and Noise Pollution Control for the MEP Department of Pollution Prevention and Control.
4. Each Party may designate a replacement Management Official at any time upon written notice to the other Party.

ANNEX 2

Water Pollution

Article 1

Authority

1. This annex to the Memorandum of Understanding (MOU) between the Environmental Protection Agency of the United States of America (EPA) and the Ministry of Environmental Protection of the People's Republic of China (MEP) on Environmental Cooperation sets forth a framework for scientific and technical cooperation on water pollution.
2. Under this annex, agreements related to project activities, including those pertaining to financial and other relevant issues, will be developed by the participating institutions. These project agreements will be negotiated and executed by duly authorized representatives of implementing institutions, to include the EPA and MEP, together, the "Parties".

Article 2

Scope

Project activities under this annex may include work in the following areas:

1. Policies and technologies for protection and restoration of sources of drinking water, major river basins, urban water environment, wetlands ecosystems and groundwater;
2. Industrial, urban and rural water-pollution prevention and control technological strategies;
3. Development of water environmental-protection laws, regulations, policies and standards;
4. Management mechanism, including governmental supervision and oversight, public participation and social surveillance; and
5. Other areas as determined by the Parties.

Article 3

Forms of Cooperation

Cooperation under this annex may include the following forms:

1. Transfer or exchange of scientific and technical information in the field of environmental protection;
2. Joint organization of symposia, seminars, workshops and training;
3. Study tours, exchanges and temporary assignments of personnel from one Party to the other;
4. Joint scientific publications;
5. Joint projects to demonstrate environmental-management approaches and technologies;
6. Cooperative research on subjects of mutual interest;
7. Provision of samples, reagents, materials, data, instruments and components for testing, evaluation and other purposes; and
8. Other forms of cooperation as may be determined by the Parties.

Article 4
Project Plans

Specific cooperative activities and the terms under which they will be conducted, including financial arrangements, shall be described in project agreements, strategies and work plans.

Article 5
Designation of Management Officials

1. Management Officials administering activities under this annex will work with participating institutions to facilitate implementation of project agreements, strategies and work plans.
2. The Management Officials for the United States are the Deputy Assistant Administrator for the EPA Office of Water and the Deputy Assistant Administrator for the EPA Office of International and Tribal Affairs.
3. The Management Official for China is the Deputy Director General for Water Pollution Control for the MEP Department of Pollution Prevention and Control.
4. Each Party may designate a replacement Management Official at any time upon written notice to the other Party.

ANNEX 3

Pollution from Persistent Organic Pollutants and Other Toxic Substances

Article 1

Authority

1. This annex to the Memorandum of Understanding (MOU) between the Environmental Protection Agency of the United States of America (EPA) and the Ministry of Environmental Protection of the People's Republic of China (MEP) on Environmental Cooperation sets forth a framework for scientific and technical cooperation on pollution from toxic substances.
2. Under this annex, agreements related to project activities, including those pertaining to financial and other relevant issues, will be developed by the participating institutions. These project agreements will be negotiated and executed by duly authorized representatives of implementing institutions, to include the EPA and MEP, together, the "Parties".

Article 2

Scope

Project activities under this annex may include work in the following areas:

1. Implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs);
2. Managing persistent, bioaccumulative and toxic chemicals
 - a. Pollution from pesticides (e.g., Chlordane and Mirex);
 - b. Pollution from unintentional POPs (e.g., dioxin and furans);
 - c. Mercury; and
 - d. Polychlorinated biphenyls (PCBs); and
3. Other areas as determined by the Parties.

Article 3

Forms of Cooperation

Cooperation under this annex may include the following forms:

1. Transfer or exchange of scientific and technical information in the field of environmental protection;
2. Joint organization of symposia, seminars, workshops and training;
3. Study tours, exchanges and temporary assignments of personnel from one Party to the other;
4. Joint scientific publications;
5. Joint projects to demonstrate environmental-management approaches and technologies;
6. Cooperative research on subjects of mutual interest;
7. Provision of samples, reagents, materials, data, instruments and components for testing, evaluation and other purposes; and
8. Other forms of cooperation as may be determined by the Parties.

Article 4
Project Plans

Specific cooperative activities and the terms under which they will be conducted, including financial arrangements, shall be described in project agreements, strategies and work plans.

Article 5
Designation of Management Officials

1. Management Officials administering activities under this annex will work with participating institutions to facilitate implementation of project agreements, strategies and work plans.
2. The Management Officials for the United States are the Deputy Assistant Administrator for the EPA Office of Chemical Safety and Pollution Prevention and the Deputy Assistant Administrator for the EPA Office of International and Tribal Affairs.
3. The Management Official for China is the Deputy Director General for Solid Wastes and Toxic Chemicals Management for the MEP Department of Pollution Prevention and Control.
4. Each Party may designate a replacement Management Official at any time upon written notice to the other Party.

ANNEX 4

Soil Pollution and Pollution from Hazardous and Solid Waste

Article 1 Authority

1. This annex to the Memorandum of Understanding (MOU) between the Environmental Protection Agency of the United States of America (EPA) and the Ministry of Environmental Protection of the People's Republic of China (MEP) on Environmental Protection sets forth a framework for scientific and technical cooperation on soil pollution, hazardous waste and solid waste.
2. Under this annex, agreements related to project activities, including those pertaining to financial and other relevant issues, will be developed by the participating institutions. These project agreements will be negotiated and executed by duly authorized representatives of implementing institutions, to include the EPA and MEP, together, the "Parties".

Article 2 Scope

Project activities under this annex may include work in the following areas:

1. Preventing and minimizing the environmental and human-health impacts of hazardous waste, e-waste and solid waste with sound regulations, policies and practices on waste prevention, management and recycling;
2. Management of treatment, transportation, storage and disposal of hazardous waste and solid waste by strengthening, implementing and enforcing sound regulations and policies;
3. Prevention, management of soil pollution and remediation of contaminated sites by strengthening regulations, developing a comprehensive understanding of the contamination and employing sound technologies to eliminate or reduce the contamination to achieve protection of human health and the environment;
4. Emergency response to incidents of hazardous-substance releases by building response capacities, providing training and developing protocols that establish the responsibilities of various levels of the government; and
5. Other areas as determined by the Parties.

Article 3 Forms of Cooperation

Cooperation under this annex may include the following forms:

1. Transfer or exchange of scientific and technical information in the field of environmental protection;
2. Joint organization of symposia, seminars, workshops and training;
3. Study tours, exchanges and temporary assignments of personnel from one Party to the other;
4. Joint scientific publications;
5. Joint projects to demonstrate environmental-management approaches and technologies;

6. Cooperative research on subjects of mutual interest;
7. Provision of samples, reagents, materials, data, instruments and components for testing, evaluation and other purposes; and
8. Other forms of cooperation as may be determined by the Parties.

Article 4 Project Plans

Specific cooperative activities and the terms under which they will be conducted, including financial arrangements, shall be described in project agreements, strategies and work plans.

Article 5 Designation of Management Officials

1. Management Officials administering activities under this annex will work with participating institutions to facilitate implementation of project agreements, strategies and work plans.
2. The Management Officials for the United States are the Director for the EPA Region 9 Superfund Division and the Deputy Assistant Administrator for the EPA Office of International and Tribal Affairs.
3. The Management Official for China is the Deputy Director General for Hazardous and Solid Wastes Management for the MEP Department of Pollution Prevention and Control.
4. Each Party may designate a replacement Management Official at any time upon written notice to the other Party.

ANNEX 5

Implementation and Enforcement of Environmental Law

Article 1 Authority

This annex to the Memorandum of Understanding (MOU) between the Environmental Protection Agency of the United States of America (EPA) and the Ministry of Environmental Protection of the People's Republic of China (MEP) on Environmental Cooperation sets forth a framework for cooperation to strengthen the development, implementation and enforcement of environmental laws.

Article 2 Scope

This annex addresses issues in the implementation and enforcement of environmental law that often cut across different environmental media. These issues include, for example, mechanisms for public involvement and access to environmental information; monitoring and promoting compliance; enforcement and imposing penalties to deter noncompliance; clarifying intergovernmental authorities and relationships; strengthening of institutional accountability and performance measurement; information management; and tools for resolving environmental disputes.

Article 3 Forms of Cooperation

Cooperation under this annex may include the following forms:

1. Transfer or exchange of information relevant to environmental-law implementation and enforcement;
2. Joint organization of symposia, seminars and workshops for a range of audiences both within and outside government;
3. Training on environmental-law enforcement, environmental management and information-management technologies;
4. Study tours, exchanges and temporary assignments of personnel of the Parties;
5. Joint publications;
6. Joint projects to demonstrate, test or evaluate environmental management, environmental-law enforcement, emergency response and information-management approaches;
7. Cooperative research on subjects of mutual interest; and
8. Other forms of cooperation as may be determined by the Parties.

Article 4 Project Plans and Activities

The Parties intend to jointly develop any necessary financial arrangements, project agreements, strategies and work plans setting out any specific cooperative activities jointly decided upon.

Project activities under this annex are designed to complement, not duplicate, cooperation under Annexes 1-4 that focus on specific programs or media (i.e., air, water, toxic chemicals and hazardous waste). Any program or media specific work will be carried out either under the auspices of the program-specific annex or in close collaboration with those involved in work under the program specific annex, whichever is most appropriate. For example, project planning for activities related to emergency response shall be addressed in conjunction with project planning for Annex 4.

Project activities under this annex may include work in the following areas:

1. Study the pattern and methods on enhancing the enforceability of environmental laws, regulations, permits and other environmental-management instruments;
2. Improving environmental-compliance assurance and enforcement procedures, policies and practices, including roles for the public and enterprises;
3. Establishing and strengthening capacity-building programs and institutions designed to reach practitioners at all levels of government in the implementation and enforcement of environmental laws;
4. Exploring approaches for effective environmental institutions, management approaches and intergovernmental relationships (among and between national and sub-national levels of government) for the implementation and enforcement of environmental laws and policies, including organizational structures, institutional design, management oversight and accountability systems with performance measures to ensure programs are implemented for environmental results;
5. Advancing the use of next-generation methods and technologies to facilitate compliance, compliance monitoring and enforcement;
6. Encouraging regulations that are designed to be easier to comply with and monitor;
7. Building capacity for Regional Supervision Centers, including, but not limited to, oversight of implementation and enforcement of environmental requirements in cooperation with other levels of government, emergency response for pollution accidents, inter-provincial and inter-regional environmental planning, coordination and dispute resolution;
8. Evaluating penalty provisions in the environmental laws and regulations and the effectiveness of their enforcement;
9. Improving the functions between environmental agencies and the judicial authorities, exchanging experiences on judicial proceedings, including prosecution for environmental interests, and fostering the judicial authorities' involvement in the implementation of environmental laws;
10. Fostering access by the public to environmental information and improving procedural arrangements for public participation in implementation and enforcement of environmental laws;
11. Collaborating on the environmental-law and enforcement dimensions of trade and investment liberalization; and
12. Other areas as may be determined by the Parties.

Article 5
Designation of Management Officials

1. Management Officials administering activities under this annex will work with participating institutions to facilitate implementation of project agreements, strategies and work plans.
2. The Management Officials for the United States shall be the Principal Deputy Assistant Administrator for the EPA Office of Enforcement and Compliance Assurance and the Deputy Assistant Administrator for the EPA Office of International and Tribal Affairs.
3. The Management Official for China will be the Director General for the MEP Bureau of Environmental Supervision.
4. Each Party may designate a replacement Management Official at any time upon written notice to the other Party.

ANNEX 6

Environmental Law and Institutions

Article 1

Authority

1. This annex to the Memorandum of Understanding (MOU) between the Environmental Protection Agency of the United States of America (EPA) and the Ministry of Environmental Protection of the People's Republic of China (MEP) on Environmental Cooperation sets forth a framework for cooperation to strengthen the development and institutionalization of environmental law.
2. Under this annex, agreements related to project activities, including those pertaining to financial and other relevant issues, will be developed by participating institutions. These project agreements shall be negotiated and executed by duly authorized representatives of implementing institutions, to include the EPA and MEP, together, the "Parties."

Article 2

Scope

This annex addresses issues in the development of environmental law and institutions that often cut across different environmental media. For example, these issues include developing and amending environmental laws, regulations and administrative procedures; creating mechanisms for public involvement and access to environmental information; enhancing rulemaking and permitting procedures; clarifying intergovernmental authorities and relationships; building capacity and structure for effective environmental institutions, including the judiciary; strengthening institutional accountability; and developing tools for resolving environmental disputes, including developing methodologies for assessment of natural-resource damages.

Article 3

Forms of Cooperation

Cooperation under this annex may include the following forms:

1. Exchange of information relevant to development of environmental law and institutions;
2. Joint organization of symposia, seminars and workshops for a range of audiences both within and outside government;
3. Training on environmental law and institutions;
4. Study tours, exchanges and temporary assignments of personnel of the Parties; and
5. Other forms of cooperation as may be determined by the Parties.

Article 4 Project Plans and Activities

The EPA and MEP intend to jointly develop any necessary financial arrangements, project agreements and work plans setting out any specific cooperative activities jointly decided upon.

Project activities under this annex are designed to complement, not duplicate, cooperation under all other annexes, and such activities will be developed and carried out in close consultation with those involved in related work under any other annex. In particular, any program-specific or media-specific work contemplated under this annex will be carried out either under the auspices of the program-specific or media-specific annex or in close collaboration with those involved in work under the program-specific or media-specific annex, whichever is most appropriate.

Project activities under this annex may include work in the following areas:

1. Improving the scope and substance of environmental laws and regulations;
2. Improving the legal foundations for environmental-compliance assurance and enforcement systems;
3. Developing capacity-building programs for strengthening enforcement of environmental law at all levels of environmental agencies;
4. Exploring approaches for effective environmental institutions, management approaches and intergovernmental relationships (among and between national and subnational levels of government) for the development of environmental laws and policies, including organizational structures, institutional design, management oversight and accountability systems.
5. Enhancing public participation through shedding more light on environmental information and through transparency of environmental decision making; and
6. Other areas as may be determined by the Parties.

Article 5 Designation of Management Officials

1. Management Officials administering activities under this annex will work with participating institutions to facilitate implementation of project agreements, strategies and work plans.
2. The Management Officials for the United States shall be the EPA Deputy General Counsel and the Deputy Assistant Administrator for the EPA Office of International and Tribal Affairs.
3. The Management Officials for the People's Republic of China shall be the Deputy Director General for the MEP Department of Policies, Laws and Regulations.
4. Each Party may designate a replacement Management Official at any time upon written notice to the other Party.